

Claims.

5 1. A method for manufacturing injection molding pieces
comprising two components whereby a first injection molding
piece is formed of a first component in a first mold
impression and a second injection molding piece is formed
by putting the first injection molding piece in a second
10 mold impression, and by providing a second component on the
first injection molding piece, wherein a mold with at least
three series of mold parts is used, namely a first series,
a second series and a third series respectively, whereby
every series has at least one first mold part which can
15 form a wall for the first mold impression when forming a
first injection molding piece, as well as at least one
second mold part which can form a wall for the second mold
impression when forming a second injection molding piece;
wherein the first series of mold parts and the second
20 series of mold parts can alternately work in conjunction
with the third series of mold parts, in order to inject at
least one first injection molding piece as well as at least
one second injection molding piece in the mold impressions
formed thereby; and wherein, during the alternating
25 presentation, a mutual repositioning of every first
injection molding piece concerned is obtained, such that it
ends up in the accompanying second mold impression.

2. The method according to claim 1, wherein aforesaid
30 repositioning is realized by changing the places of the
first injection molding pieces after their production by

removing them from a mold part with which they have been made into the other mold part which is part of the same series.

5 3. The method according to claim 2, wherein said first injection molding pieces are moved by means of a transfer part which is active between the mold parts of the series concerned or by means of a robot.

10 4. The method according to claim 1, wherein aforesaid repositioning is realized by leaving the first mold injection pieces, after their production, when opening the mold, on the mold part of the first series (6) in which they have been made, on the mold part (10) of the second
15 series in which they have been made respectively, and by making sure that, at the next co-operation of the first series with the third series, of the second series with the third series respectively, the mutual position of the mold parts of the first series in relation to the third series,
20 of the mold parts of the second series in relation to the mold parts of the third series respectively, is changed.

5. The method according to claim 4, the mutual position is changed by subjecting one or several of the first and
25 second series of mold parts to a rotation, in particular in relation to a support upon which they have been provided.

6. The method according to claim 1, wherein aforesaid repositioning is realized by leaving the first injection
30 molding pieces, after their making, when opening the mold on the mold part concerned of the third series, and by

making use of a first series and a second series whose mold parts assume opposite positions.

7. The method according to wherein the first series of mold parts (6) and the second series of mold parts preferably alternately co-operate with the third series of mold parts by making the first and second series on the one hand, and the third series on the other hand carry out a mutual rotational movement.

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8. The method according to claim 7, wherein the aforesaid rotational movement is realized around an axis of rotation which is parallel to the closing direction of the mold parts concerned.

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9. The method according to claim 8, wherein the third series of mold parts is erected such that it cannot rotate, and in that the first series and the second series are rotated around an axis of rotation situated outside the third series.

10. The method according to claim 7, wherein use is made of a first series of mold parts and a second series of mold parts provided on a common supporting structure, whereby, from a general point of view, they are mutually situated at an angle with their land areas, and whereby the first series of mold parts and the second series of mold parts can alternately be placed opposite to the third series of mold parts by rotating the aforesaid supporting structure around an axis of rotation which extends according to the bisector between the aforesaid two land areas.

11. The method according to claim 7, wherein the third series of mold parts, in order to make them alternately work in conjunction with the first series and the second series, is rotated between the first series and the second series.

12. The method according to claim 7 or 11, wherein the first series of mold parts and the second series of mold parts are directed towards one another with their land areas, and in that the third series of mold parts is rotated in between along an axis of rotation extending diagonally to the closing direction of the mold.

13. The method according to claim 11 or 12, wherein use is made of a third series of mold parts which is at least split, such that two or more third series are created, such that when the mold parts close at every injection molding cycle, a third series co-operates with the first series, just as another third series co-operates with the second series.

14. The method according to claim 1, wherein while the mold is being closed, at least one series of mold parts is kept outside the injection molding cycle.

15. The method according to claim 14, wherein at the series of mold parts which is kept outside the injection molding cycle, at least a repositioning as mentioned above is realized.

16. The method according to claim 1, wherein the first series of mold parts and the second series of mold parts alternately work in conjunction with the third series of mold parts by making the first and the second series on the one hand and the third series on the other hand alternately carry out a translation movement.

17. A device for manufacturing injection molding pieces, in particular according to the method of one of the preceding claims, whereby it mainly consists of a mold with at least three series of mold parts, a first series, a second series and a third series respectively, whereby every series has at least one first mold part which can form a wall for the first mold impression when a first injection molding piece is formed, as well as at least one second mold part which can form a wall for the second mold impression when forming a second injection molding piece; one or several motion mechanisms which make it possible for the first series of mold parts and the second series of mold parts to alternately work in conjunction with the third series of mold parts, in order to inject at least one first injection molding piece as well as at least one second injection molding piece in the mold impressions formed thereby; means for opening and closing the mold; and injection molding aggregates for injecting the respective components; whereby this device also comprises provisions which make it possible, when the aforesaid mold parts are alternately presented to one another, to provide for a mutual repositioning of every first injection molding part concerned, such that it ends up in the accompanying second mold impression.

18. The device according to claim 17, wherein the mold parts of the same series are formed as a whole, in other words as one and the same mold block or in one and the same mold frame.

19. The device according to claim 17, wherein said mold is made as a stack mold.

20. The device according to claim 17, wherein said third series of mold parts and a first series of mold parts or a second series of mold parts working in conjunction therewith during an injection molding cycle are concentrated in a single local sealing zone, preferably a rectangular zone, while the other series of mold parts, i.e. the second series of mold parts or the first series of mold parts, then protrudes from said sealing zone.

21. The device according to claim 20, wherein the series of mold parts working together during an injection molding cycle on the one hand, and the other aforesaid protruding other series of mold parts as mentioned above are situated on top of each other.

22. The device according to claim 17, comprising mold parts which can be moved, as described in any of claims 1 to 15, whereby this device is further comprising means for moving the mold parts as such.